that demand. Internet technology has led to a rise in a kind of promotion that goes beyond word-of-mouth advertising. Viewers who forward to other users interesting videos or segments of information about programs or sites are indulging in a form of active publicity called *viral* communication. **Viral video** refers to images or programs that often get shared this way—for example, when the latest hit on YouTube is forwarded to thousands of "friends".

If a video becomes sufficiently popular, websites like *mashable.com* declare the clip a **meme** (referring to internet-spread ideas that attract intense notoriety). For example, fooling someone into watching a video that purports to be interesting but is really 1980s singer Rick Astley performing a music video became so popular at one time that it was labeled the "rickrolling" meme. Top-trending topics on Twitter are also candidates for becoming internet memes.

Local stations have also gotten into the act by streaming live content during their newscasts. **Livestream** is a tool for anyone wanting to launch a web television channel for free. Some broadcast stations (e.g., WSPA in Spartanburg, SC) use Livestream during live newscasts to show behind-the-scenes material during breaks. Other stations use Livestream to upload news clips.

Ubiquity

Regardless of how videos are generated by users (or what website distributes them), they have become ubiquitous. One reason is the ease with which they can be shared. Videos can be uploaded to a site such as YouTube, where an *embedded code* can be inserted into a Facebook wall, a news aggregator, a blog, a personal webpage, a Twitter tweet or even old-fashioned email. The ease with which computer users can click a button to play a show would have seemed a miracle just a few years ago. *For viewers battling boredom, it is easier to find something entertaining on the web than on regular television.*

Even watching regular television is an invitation to see YouTube videos, as the manufacturers of big-screen receivers integrate the web into their screens. A remote control with a YouTube jump-button is likely to attract an audience for popular videos on almost any topic, even clips from 50-year-old television shows. Viewers with older receivers can still watch YouTube through a TiVo DVR, Apple TV box or Roku box. Roku sells for as little as $59.99 and delivers Netflix, Hulu Plus and Amazon Instant Video to any TV set in a web-connected household with Wi-Fi internet.

The chart in 4.5 provides a snapshot of video online in May 2011. It lists ten online video suppliers

4.5 Reports on Online Video Use*

Source	Unique Viewers	Viewing Sessions	Minutes per Viewer
YouTube and other Google sites	147,158,000	2,173,422,000	311.2
VEVO	60,369,000	360,205,000	105.1
Yahoo! Sites	55,482,000	272,255,000	39.1
Facebook.com	48,189,000	176,076,000	19.3
Viacom Digital	46,535,000	241,026,000	74.2
Microsoft Sites	46,502,000	251,799,000	42.8
AOL, Inc.	42,271,000	246,592,000	45.7
Turner Digital	35,185,000	126,760,000	36.3
NBC Universal	30,622,000	67,251,000	21.1
Hulu	28,543,000	195,897,000	217.8
TOTAL FOR ALL SOURCES	176,337,000	5,662,369,000	951.3

*comScore Video Metrix

and the time viewers spend on each of them. The chart also shows how many viewers used video in that month, how many sessions were streamed to them, and the average time they watched at least for one month; this data changes fast.

Enhanced Viewing

Enhancements come in many types, and new ones are invented almost daily. Anything that expands or prolongs or enriches the regular television viewing experience is called an *enhancement*. First, there are references and links to websites. In addition to links in program webcasts, virtually all TV stations have streaming versions of their newscasts featured prominently on their web pages. Even the big guys (NBC, FOX) have created synchronized interactive links between their evening news broadcast and various websites. Moreover, nearly every sports event has an enhanced online viewing feature, with a logo in the screen's corner to remind viewers that they can access game statistics or enter contests online. Even syndicated game shows offer play-at-home online enhancements.

Another kind of enhancement consists of backstories and side stories and interviews that expand on what appears on regular television. This kind of enrichment both lengthens and deepens the fans' experience of a program and its stars, or so the makers hope. While some of this material appears in magazines, most of it now resides online on station and program websites. But viewers can also use social media to connect with other viewers without help from stations or channels. And the clear-winner among online enhancements formats is social networking via online communities in which participants engage in computer-mediated communication.

Social Networks

Social networks provide an extraordinary kind of program enhancement. Sometimes accompanied by *widgets* (downloadable software programs that feature media content), these sites provide the opportunity to interact, much like games. Not only can fans read about and interact with their favorites, but as you know, they can discuss and compare and interact with "friends" and strangers.

Facebook is, of course, the largest such social network, with something like 600 million active users worldwide. It accounts for nearly 10 percent of all referred video streams, second only to Google, which accounts for more than half. Owned primarily by Mark Zuckerberg, along with other partners (but planning to go public soon), Facebook makes its revenue largely from banner ads provided by Microsoft and from Facebook credits (used to purchase items in games and other virtual applications). Like websites, Facebook groups have been created by stations, channels and viewers to enhance viewing experiences among friends, family and acquaintances, and in effect, solidify and expand fans' relationship to specific programs (thus making them excellent vehicles for advertising). To create or access Facebook pages, users must be 13 years old (supposedly) and register, although many younger children just lie. More than 40 percent of Americans have Facebook pages, and about 140 million Americans access the social network monthly.

Experimenting in 2011, Warner Brothers joined with Facebook to invite members to download the movie *The Dark Knight* (for 30 Facebook Credits, or $3). *Mature media companies are eager to protect their core business by following their users onto the internet in order to stay close to their current and potential customers*. Expect many more such joint efforts.

The second-largest such social site, **MySpace.com**, encourages its users to post videos (vlogs, which are video versions of blogs) that can be watched for information and entertainment value. But MySpace.com was sold in 2011 for $30 million, a fraction of the $580 million that Rupert Murdoch's News Corporation paid for MySpace.com in 2006, so the future of this social site has dimmed considerably. One exception may be musicians, who prefer MySpace over Facebook for posting videos and audio files.

Another widely-known enhancement is **Twitter**, a hip form of social media that allows users to *follow* people (most of whom they don't know

personally, unlike Facebook friends). To "follow" is to agree to have someone's tweets (posted messages) included into your own personalized Twitter stream (analogous to a Facebook wall), so you only see comments you want to read, from those people you follow. People follow tweets in attempts to learn information, watch trends, monitor breaking news or engage in conversations with strangers who share an interest. Not everyone who loves Twitter bothers to tweet, although many users choose to share. If users of Twitter "overshare" details in their messages, their followers can choose to *unfollow* them. Following and unfollowing on Twitter is much more casual and tentative than friending and unfriending on Facebook.

Twitter has actually changed the way many people watch television in a big way—especially during special events like the Super Bowl or the Academy Awards. A person who is watching alone can *feel connected* by reading (and sometimes contributing to) a stream of *tweets* (Twitter messages of 140 characters or fewer, also known as *micro-blogs*) about the program. Watching "with" others alters the viewing experience by giving it more importance and making it more pleasant and interesting, and salience generally affects memory (an aspect that has not been lost on advertisers or programmers).

Using tweets, broadcast stations and national networks are able to entice followers with information about the normal televised content. Creating a buzz about a live event and creating a stream of human interest is no less riveting for some viewers than the links social media created among rioting Cairo citizens during the 2011 uprising against President Mubarak.

Many more people belong to Facebook than Twitter, but tweeting to strangers about television is easier when your friends don't happen to share your taste in programming. The focus of tweeting is thus on the program or channel rather than friendship. Bridging this divide is the introduction of social media tools to share *what you are watching* with *any* online community. It is too soon to know if viewers will really want to share what they are watching in the same way they seem to enjoy sharing what they are doing or thinking, but several websites and apps have begun to link viewers by letting them create social media profiles in which they can comment on television programs.

Other TV Apps

One of the simplest of these apps is called **tv Chatter**, which retrieves comments about programs directly from Twitter. A similar app is **yap.TV**, which uses a program schedule grid of programs currently showing that then leads to an unedited Twitter stream of comments based upon the selected program. The difference between the two apps is that the latter lets subscribers create their own "yaps" to compete with the "tweets" on Twitter. Yaps are public or can be contained in a "private party" group chat area.

NBC Live is the most elaborate app, offering three benefits for viewers. First, it provides a way to watch streaming versions of the most popular shows on NBC. Second, it encourages viewers to log in (either on the web or iPad) to interact with additional content (trivia, polls, cast commentary and fun facts about the show being viewed). Third, NBC Live offers a hosted social media forum, where viewers engage other fans of a particular program (and occasionally insiders from that show). NBC Live is clearly a promotional tactic to attract and maintain viewers to NBC programs.

Miso and **Tunerfish** are "check in" sites, where viewers tell what they are watching right now, similar to how they might share their present location on geo-location sites and apps like Foursquare, Gowalla, Facebook Places and Google Latitude. Miso provides badges as a reward for checking-in, an idea borrowed from Foursquare. Subscribers to Miso can also "follow" television shows, similar to the way Twitter users follow other people. Tunerfish is a phone app started by Comcast (who has very deep pockets) that is much like Twitter in the way it provides trending topics and a stream of users answering the question "What are you watching now?" Users can choose either "everyone" or "my friends" for finding out what others are watching. **Philo** and **Starling** are phone apps similar to Miso, but neither worked on the iPad we tested.

GetGlue is an app that focuses on media entertainment. Its creator calls it a window into the "taste graph" of entertainment. GetGlue organizes itself around a user's answer to "I am currently …" with the choices *watching a show*, *listening to music*, *reading a book*, *watching a movie*, *playing a game*, *thinking about a topic*, *chatting about a celebrity,* and *drinking wine*. Users check-in to various media, receiving virtual stickers (which can be redeemed for actual stickers). Viewers can see a comment stream and assign ratings (of the thumb up or down variety), with or without comments. Does that appeal to you? Stickers, really?

IntoNow (owned by Yahoo, another elephant in the room) is a phone app for television viewers and provides a "popular" button for finding out what others are watching (and commenting upon or assigning a rating to the content). Like the Tunerfish app, IntoNow lets users see what friends or "everyone" is watching.

Television Without Pity (TWOP) is a website and cell phone app that encourages viewers to comment upon or create synopses of popular programs. **tvChaser** is an app that functions as an alphabetical search engine for television programs, providing much shorter synopses than those found on TWOP. Which of these will still be around by 2015 is anyone's guess. Place your bets!

Online Program Guides

In the 1990s the venerable *TV Guide* magazine created an online web service. Along with such companies as *www.zap2it.com,* such guides supply detailed tracking of half-hour by half-hour broadcast and multichannel offerings for all the larger U.S. markets. In addition to websites like theirs, there are dozens of apps for television that furnish program guides. Zap2It has released an app called *What's On* that takes the place of newspaper or the paper magazine form of *TV Guide* listings. It also includes times and locations for movies in local theaters. Not to be outdone, *TV Guide* came up with its own app for the iPhone and iPad, with local listings plus news about television.

Unlike printed program guides and their online counterparts, which are designed by the publishers in "one size fits all" fashion (per market), web-based television puts the user much more in control of the flow of information. Web-based television typically provides on screen access to very detailed websites like *www.imdb.com,* a searchable compendium of information on television and movies. Of course, there's always Wikipedia, but focused apps are usually more up-to-date on current programs and movies.

These enhancement apps are a tool for programmers (and fans) to make viewing more enjoyable. The future of such specialized social media is unclear, but the proliferation of cell phones and Wi-Fi tablets makes apps a tempting distraction for television viewers. Viewers are more likely to watch programs *live* than on a DVR when comments to friends or followers are concurrent with viewing. Live viewing (and commenting) also leads to less skipping of commercials. On the other hand, tablet and phone apps can serve as handy time-filler when advertising messages appear in live shows.

Video Games and Virtual Worlds

Video gaming is the third major type of online programming. How old would you guess most video game players are? What often comes first to mind are teenage boys wielding joy sticks in *Worlds of War* and the like or families jumping around playing Wii. But contrary to stereotypes about video game players, more than half the people playing online games are aged between 30 and 59, and they play everything from mahjong to Sudoku, word games and solitaire. Moreover, such games appeal to men and women almost equally, and they increasingly play them at home on their laptops while watching regular television.

Zynga has successfully launched such wildly-popular Facebook games as *CityVille*, *FarmVille* and *Mafia Wars* that rely on a player's friends, family and acquaintances to attain rewards in the games (see 4.6). Facebook also acquired another iconic computer game, *Civ World*, adding to its luster as the center for adult gaming. Facebook estimates nearly 300 million members play social games,

4.6 Zynga

Since 2007, Zynga has been enormously successful at creating lifestyle games to which a broad segment of users (typically people not ordinarily attracted to video games) often become addicted. Known as "the Google of games" to some observers, Zynga has built its fame on popular games like *FarmVille*, *CityVille* and *FrontierVille*. Although each game has stand-alone browser-based versions, most players participate with their friends via Facebook. By June 2011, Zynga had 270 million monthly active users. *CityVille* has 20 million daily players.

Most of the games rely on social media friends to assemble a community of game players who help each other achieve ordinary goals, like harvesting crops or feeding animals or constructing buildings. The objects in these games are virtual goods that convert to points or virtual money, with which players can purchase virtual items. Success in these games depends on effort, but players can also buy virtual goods from Zynga to advance further toward game rewards or sometimes avoid penalties. For example, virtual farmers can resurrect crops that died by paying roughly $2 in real cash to Zynga, which sells game "coins" (or Facebook Credits) in $10 or $20 bundles. Real-world poker tournament players recognized this tactic as a "re-buy" that allows a bankrupt player a second chance to play on. It is probably no coincidence that Zynga's very first social media game was *Zynga Poker*.

Thanks to enchanting graphics and time-based participation, Zynga captures players' attention with virtual activities that are fun to play with their friends at no cost—but then offers those same players additional benefits for a price. Zynga profits not from the free games but through the sale of virtual goods that players desire to advance in the game. Zynga's games follow the so-called freemium model, a combination of free and premium playing.

The more players play, the deeper they get into the games. Taking a day off, for example, hurts a player's points. It's not unusual for ordinary people who would never play video games to get drawn into the game, somewhat like an addiction. So a *FarmVille* player might get up early before going to work because their corn crop must be harvested before it withers. Manual harvesting takes longer than using a tractor, so the player feels the need to acquire farm machinery. Then, to operate the tractor, the players choose to either convert game points to buy gasoline or pay real money online (Zynga hopes) for game coins to purchase fuel. Playing the game is more mindful than passively watching television, although people often engage in both activities simultaneously.

CityVille is Zynga's most popular game, offering players the opportunity to build a virtual city, acquire energy points, and advance through experience levels. Zynga claims 61 million monthly users of *CityVille*. Players (often friends on Facebook) visit one another's cities and perform work in a reciprocal fashion. Friends can give gifts to other friends who play, just as they did in *FarmVille*. Thus, social media acquaintances who may have nothing to say to their friends each day can still share some kind of message to help the other in the game (e.g., "Mary has sent you a Zoning Permit" or "Can you send me an I-beam?"). Beyond the individual accomplishments rewarded in the game, players make friendly connections with people they know. If cities and credits can be virtual, why not build virtual friendships?

buying virtual goods like food and fuel to advance in the game. Slightly over half of all Facebook users log in specifically to play social games because of the real-time rules that foster addiction to playing.

Traditional media networks have tried to promote their offline programs during online gaming but have not met with much success thus far. What works better is to develop a television game show with an online game counterpart that is itself a promotional tool, fostering back-and-forth promotion of the two versions and advertising opportunities in both media. *Jeopardy*, for example, exists in daily syndicated television, online in several forms and in a box as a board game.

Then there are the heavy game players. They log in on ordinary web-connected computers to play **massively multiplayer online games (MMOG)** with hundreds or thousands of online friends and strangers. Youngsters (no less addicted than those parents who play *CityVille*) play online games like *Runescape* and the wildly popular *World of Warcraft* (in several

versions). Monthly subscriptions are required for most of these games. Time spent playing typically *displaces* time spent viewing television, but teens sometimes do both, as do some adults.

Programmers and users classify the content of online and console games under the following five categories: role-playing (RP), first-person shooter (FPS), real-time strategy (RTS), turn-based strategy (TBS) and simulations (SIMs). Each game requires a downloaded program through which the player logs onto a network of users (or, in the base browser-based games, a "thin client" program operates the game). Some examples are described briefly in 4.7, and you can probably think of more!

Even standalone game consoles like Xbox 360 and Playstation 3 have moved from *solo* to *multiplayer games*. With built-in Wi-Fi devices, these consoles let players enjoy MMOGs like *Call of Duty (I, II, III, IV…), Halo,* and that all-time parents' horror, *Grand Theft Auto* in all its permutations. The chief advantage of playing games on a game console is that such devices were designed specifically for games. Thus, the game controllers are easier to use, the graphics are better, and connections have less "lag time" (because dedicated chips distribute the flow of information). Voice chat is also better implemented on game consoles than on computers. Game consoles also have advanced motion controls, such as Kinect for the Xbox 360.

Still another online game format consists of **virtual worlds.** These are computer-based simulated environments intended for users to inhabit and interact with via avatars. Defined as the web user's representations of his or her individual self, **avatars** occur in three forms: three-dimensional models, two-dimensional icons or text constructs. Very shortly after such sites first appeared, big commercial interests latched onto the branding and profit opportunities. For younger children, Viacom's *Neopets* has been especially successful. Nickelodeon's *Nicktropolis.com* targets children's desire to play games, watch videos, design personalized 3-D areas, and interact with other kids in real time—and also targets parents' desire for a "safe" online environment.

4.7 MMOGs

The most popular MMORPGs (where RPG stands for role-playing game) are *Runescape, Final Fantasy* and *Tibia*. Players spend hours in a fantasy world where items are collected and exchanged for tools or power, and battles are fought. Websites such as *http://usfine.com* have also sprung up to help players move forward in the game, for a price.

MMOFPS games (first-person shooter) require the player to become a warrior, and the competitions are shown through a first-person field of view. Among the most popular games are *Combat Arms*, *AssaultCube* and *CrossFire*. MMOFPS players are usually awarded points for experience. Nexon is a major supplier of these games, and it makes money through monthly subscriptions and merchandise sales.

Beyond Protocol and *Battleswarm* are examples of MMORTS (real-time strategy) games, which fall into two respective categories: sci-fi and fantasy. Players typically get to be a king or a general in command of others. Large numbers of players can compete in these games set in a persistent world hosted by the company that designs the content and charges fees.

MMOTBS (turn-based strategy) games are regulated by the tick on an online clock. Between the ticks, hundreds of players share the same field of conquest, where moves are made asynchronously and then locked in every 30 seconds or so, allowing players with slower (or intermittent) internet connections to simulate synchronous playing. *UltraCorps* and *Darkwind* are trendy examples.

SIMs (simulations) are a category of multiplayer games that includes poker, sports, auto racing and alternative worlds. Gamblers compete for play money (sometimes real, when the law allows) at such game sites as *Pokerstars* and *Full Tilt Poker*. Sports fans play a variety of games (one example is *Baseball Mogul Online*) which are similar to fantasy league competitions. *Kart Racer* is an example of an online racing game quite similar to MMORPGs, except that the role-playing is limited to driving very fast. Players of games like *The Sims Online* create their own alternate worlds.

Middle-school children are attracted to such semi-educational sites as *Gaiaonline.com* on which they use anime-type avatars (cartoons, manga) to interact in real time and earn rewards that "buy" virtual toys. Such sites earn their revenue from the purchases of clothing, hair clips, posters, stickers, games and so on. Such virtual-world models are moving into regular classrooms for more direct academic learning. For the adult population, the most popular virtual world site is *SecondLife.com,* a three-dimensional UGC where participants buy and trade virtual land and virtual dollars (using more spooky avatars). *Gaiaonline* and *SecondLife* peaked in popularity about 2009, but both still have large numbers of users.

A Conceptual Framework

When an innovation comes along that fundamentally changes the way people view the world, the term *discontinuous change* is used. At first glance, the use of online technology to distribute radio and television programming appears merely an extension of broadcasting—another way to receive the content—as with cable and satellite. The key difference, however, has been the degree of *interactivity* between the user and the programmer, a factor which created a sea change from the past. The seemingly infinite number of choices is another important difference: By 2012, there were more than 800 million *internet hosts* (which are comparable to channels).[4] Another change is that the formerly dominant media are now forced to compete with such unconventional forms of electronic entertainment as digital photo albums, visual encyclopedias, vlogs, virtual worlds and amateur podcasts.

Other chapters in this book have been structured around *strategies* for selecting, scheduling and promoting programs plus evaluating audience response. The "a la carte" nature of program offerings on the internet, however, has transformed many of the programmer's tasks. Instead of schedules of limited choices, the online audience has an abundant menu of near-limitless choices. Every listener and every viewer can construct his or her own media landscape. In this content-on-demand world, fewer people spend the same time enjoying the same program that other people are watching. Yet, *many viewers continue to expect that someone else will assemble offerings into a schedule, or at least a highly simplified menu.*

Although it is safe to define **online programming** as *media content available through a computer screen, tablet or speaker that displaces or substantially supplements the use of noncomputer media content*, it is only possible to sketch out some segments, not boundaries. Indeed, some handheld devices allow the screen to be wirelessly shared with a larger screen in a group setting (such as through Apple's AirPlay). While online content includes live and taped shows, described previously as streamed or video content, it can encompass virtual events, including chat rooms and group event simulations such as those just discussed (*Gaia, SecondLife*). *Online programming particularly includes but is not limited to web pages that promote programming delivered over conventional channels*, but does not include, for the purposes of this book, the archived sound bites and video clips found on journalism sites, which we set aside.

Conceptually, online programming compares with other programming as shown in Table 4.8. While the list of differences is not exhaustive, it is nevertheless helpful for framing the relative position of online distribution. Although these distinctions may seem peripheral to *how* programming is strategically scheduled, these conceptual differences are crucial for programmers' understanding of *why* new media are fundamentally unlike more traditional media.

The central uniqueness of the online world is its *interactivity*. Applications that are interactive account for an ever-growing slice of spending on the media. In the near term, we expect that cell phones, tablets, portable media players or some new multichannel television platform will better realize the full potential of new media systems.

Geography

Because they are distributed by middlemen—the broadcast stations and cable systems—ordinary over-the-air radio and television signals are limited

4.8 Strengths and Weaknesses of Media Delivery Systems

System	Reach Limited by	Revenue Streams	Bandwidth	Interactivity
Broadcast	Geography	1. Advertising	High	One-way
Cable/Satellite	Channel capacity	2. Ads, plus subscriptions	High	Mostly one-way
Online	Bandwidth	3. Ads, subs, plus merchandise	Medium	Two-way

by geography. Back in the mid-twentieth century, networks were developed to link together stations and cable systems to create national services. In the 1980s and 1990s, multichannel media (cable and satellite) became collections of networks, limited by shelf space to about 600 digitally compressed channels (see Chapter 9).

Online, in contrast, is free of inherent geography and fixed channel capacity, but somewhat limited by the size of the pipe (*bandwidth*) through which programming must flow. Bundled fiber cables, however, are now replacing old-style coaxial cable and telephone lines, thereby increasing bandwidth. And internet cable modems and DSL have pushed delivery speeds to 5 megabits per second (mbps), with speeds up to 8 mbps for additional monthly fees. The theoretical limit of DSL remains 10 mbps, but cable is easily three times as much. Moreover, for larger cities, Comcast developed 50 mbps speeds and achieved 100 mbps over fiber connections, leaving DSL far behind. (Clearly, if you are a gamer 100 mbps is to die for!) When internet access comes through such connections, very high-quality video and audio are possible. Nonetheless, to match HD television quality, distributors must provide many megabits per second over shared access lines. *It is a rule of science that faster speeds produce better video and audio quality.*

Economics

The very essence of programming strategy is linked to how revenue flows from consumer to program producer, with the distributor (qua programmer) as middleman. All three forms of media programming shown in Table 4.8 have offsetting benefits and drawbacks. The key distinction between broadcasting and multichannel distribution has been the number of revenue streams: Over-the-air radio and TV stations rely almost entirely on *advertising*, whereas cable/satellite services have dual income from *advertising and subscriptions*. Although the broadcast industry has only a single revenue stream to date (NBC has taken the first baby steps toward a second stream from cable operators), the "free" element of broadcasting allows nearly complete audience penetration: 98 percent of U.S. homes receive broadcast radio and TV stations, meaning nearly all 300 million Americans can see and hear them.

Thus, broadcast advertising is more efficient for reaching enormous numbers of people than cable or internet advertising, which means that broadcasters can charge more for the time in which commercials air. Online programming, however, has a third revenue stream from *merchandising* because its technology allows point-and-click purchasing of items related to media content. Once, such products and services could be sold only in the commercial breaks within TV shows. Now, companies like Zynga profit immensely by selling virtual goods (for which there is no manufacturing cost) to people playing online games. And Facebook and YouTube and dozens of others look to get into the virtual goods game.

The ability to attract subscribers to internet programming has been negatively affected by the "free" nature of the internet because, at the start, most content was reused broadcast material or a sorry sort of amateurism (UGC) lacking the production quality that viewers were used to. Nowadays, those who supply high-quality programs made-for-online must

charge (like cable) and compete with those that seem free because they are advertiser-supported (in particular, broadcasters—and the pirate services that share their content with everyone for free). Web users have become willing to pay because they see the value and convenience of streaming video.

Convincing advertisers to evolve away from the long-established system of *cost-per-thousand* and *gross ratings points* has been a challenge for the online world. On the positive side, unlike conventional television's delivery of spot messages to an unknown audience, broadband video delivers a targeted message to actual users. By 2010, online video accounted for just 10 percent of all advertising dollars. Yet, the number of people who consume online video continues to grow (see 4.5), and that great size looks appealing to many with something to sell, so expect change there.

In traditional broadcasting, programs that under-deliver (have fewer than the predicted and thus paid-for number of viewers) necessitate the giving up of precious airtime in future programs for "make-good" commercials. In the online system, content providers cannot so readily hedge potential audience size. As a result, the traditional advertiser-supported model is slowly transforming into a "*pay-per-viewer*" *model for advertisers*. However, internet media analysts and executives correctly predicted that demand for *subscription video services* would eclipse the *pay-per-use* model *for consumers* because of greater convenience and predictability. By 2011, cord-cutters had generally traded the option of $10 per premium channel for lower cost channels hosted by Netflix or Hulu Plus. HBO and others have begun to shift their economic model, to avoid sharing the fate (demise) of established media giants like Blockbuster.

By now it is abundantly clear that *audiences prefer pre-roll advertising and commercial interruptions to paying for short clips of video*. On the other hand, the success of subscription services like Netflix and Hulu Plus suggests that viewers will pay for video subscriptions, especially in the case of movies and games.

Despite broadcast and cable's continuing importance, there are some highly positive features to being an online program supplier. No licenses and franchises are required, unlike for broadcast stations and cable systems, and very little FCC regulation applies to online. Moreover, at present, the distinction between *distribution* and *content* is tenuous. Because there are very few distributors, content *really is* king. There are no bricks and mortar as with stations, cables and satellites. Very few barriers exist to consumption immediately after the creation step, and the size of staff required to maintain a website is much smaller than for broadcast stations or cable operations.

Most crucial to this book about media programmers, the job of the online programmer has uniquely become the job of librarian. Mostly, a programmer keeps track of things—the "things" being UGC videos submissions, updates to games, subscribers and members, players, special offers—and maybe advertisers (unless someone else handles them). Selection and evaluation remain valid functions, but the importance of scheduling is greatly diminished because everything is potentially available all the time. Daily promotion tends to be supplanted by research to find out who to promote to. The key job is helping users find what they want (before their patience runs out). Whether listeners and viewers prefer to create their own media landscapes or choose among packaged ones remains to be seen, but the online world is not a particularly friendly place to middlemen … except for the very Big Guys.

In the online world, the focus is on *content aggregators* like YouTube and Netflix. The actual *content providers*—the people who produce short videos—either opt to place their "shows" on aggregator sites or to remain off-portal on *independent websites*. However, website programmers must rely on the *search engines*—such as Google and Bing—in order to be located by most users. *Programmers must decide whether to offer their content via major sites or to go it alone, hoping to be found by the search engines.* In the days of text-only search engines, this was a difficult decision, but video search has been integrated into all the major search engines, making it difficult *not* to be found. On the other hand, the numbers of entries turned up by Google and others sometimes run into the hundreds of thousands, and being buried on such long lists brings few hits. *The solution for players with deep pockets has been to purchase placement at the start*

of a related search as a form of advertising. Google.com and others charge advertisers for favorable placement during online searches.

For those who have broadband, the choice between free and subscription internet content parallels that of broadcast and cable TV. Nowadays, the best content comes at a premium, but advertiser-supported free content is still pretty good. Those who decide to pay extra for content—that is, beyond the considerable monthly expense for high-speed access (which has other benefits such as fast email and instant messaging)—can save money by subscribing to a content provider aggregator that packages several services.

But an a*uthentication model* is popping up that provides protection for the existing MVPDs. What it means is that real (authentic) subscribers to a cable or satellite service will be favored online users of television programs. Authentication makes hot online content available to cable and satellite subscribers but not (or not now) to non-subscribers. Having a vested interest in forestalling cable disconnects because of all the cable networks its parent corporation owns, FOX was the first broadcast network to adopt the practice on Hulu, but others will soon follow suit. Only real (authentic) subscribers to a cable or satellite service will get to see FOX series immediately on Hulu, whereas non-authentic users will have to wait eight days to see repeats (or maybe forever, if this protective approach takes off—and it is expected to, although Google might keep an open system). If the authentication model becomes widespread, the chances of people dropping their MVPD subscriptions become considerably lessened. For the avid online user, getting to see episodes many days later isn't as appealing as seeing last night's episodes today. At a minimum, authentication practices are expected to slow down cord-cutting.

Strategic Considerations

If program strategists are middlemen, and the internet has no middle, then what is the role of program strategy? Considering the strategic themes outlined in Chapter 1 might lead to the conclusion that *selecting* online programs is different from selecting in the old media environment—but there are, however, enough similarities that programmers can make the transition from a time-bound broadcast world to an a la carte online world.

Daypart Compatibility

The utility of dayparting as a strategic theme was considerably weakened for broadcasters with the advent of themed cable channels in the 1980s and 1990s (for example, CNN, Game Show Channel, Cartoon Network). However, *the true goal of dayparting is to target sizeable groups of people,* and the use of a time segment is only one means to the goal. Online programmers who select programs for a given website certainly can match their content to a *compatible* audience. For example, ESPN Motion and other sports sites take advantage of knowing what fans like to see and delivering it to them.

In the earliest days of streaming video, the distribution of materials was a novelty, so targeting was minimal. Streaming was done because it was possible, not because there was any market demand. For example, downloading programs from mainstream television took so long they would rarely warrant most users' effort because it was easier just to watch TV.

But despite the fact that teens and college students account for a big chunk of the online video audience, the average age of U.S. viewers is an ancient 39 or so. Over and over, data compiled by such online research companies as Nielsen//NetRatings, comScore and Quantcast show that web surfers over 35 years old make up anywhere from half to two-thirds of YouTube's audience.[5] *Nowadays, the typical online user is no different from the typical television viewer.* Thus, the strategies used by the cable theme channels will find new homes online, with the key difference being the user's ability to select from a list of options (*online menu*), as in digital cable. *The programmer, as always, must construct an online menu that is compatible with the desired visitor to the website.*

Habit Formation

Freed from time constraints, the web can show anything, anytime. Programmers must count on first-time visitors being so impressed with their sites' contents they will find it rewarding and may even *bookmark* it (save the site's address). Social bookmarking sites like Diigo, Delicious and Google Bookmarks facilitate the sharing of bookmarks with one's friends. Present studies of *website repertoire* already note that users have a limited number of favorite sites (so much so that the idea of "web surfing" has become outdated except as a way to find specialized information). Entrance *portals* like YouTube and Hulu function like networks, connecting groups of content (in contrast to outlets like local broadcast stations). A main screen menu presents different categories of content (called *links*) that are sorted by interest area: news, sports, weather, travel, shopping, movies and so on. Portals do not hold the power they once did because people have become accustomed to searching via Google, Yahoo!, Bing and similar search engines.

The job of habit formation becomes making a favorable first impression and having the most user-friendly appearance and content—to the extent that that users think of certain sites as "the best weather radar site" or "the best online auction site," an evaluation that may also appeal to the "programmers" of search engines and get them top listing. Nonetheless, *paid search placement* is increasingly the deciding factor. With paid placement, the search engine grants preferential positioning to the client who pays them for the favor.

Another financial scheme is for the video aggregators to share revenue with the creators of short videos, especially when short *roll-in* advertisements precede the videos. In the case of YouTube (the aggregator), Google (the search engine) maintained the upper hand by acquiring it (YouTube) for $1.65 billion (which may sound like a lot of money until one recalls that Yahoo! paid $5.7 billion for Mark Cuban's *broadcast.com* website in the late 1990s during the dot-com heyday).

Habit formation is carefully considered by the producers of interactive games. It is not a coincidence that one website is called *www.addictinggames.com*; the best video games encourage long play and reward daily visits. Some games, such as *Farkle* on Facebook, punish players with fewer bonus awards if they miss a single day. Employers complain that employees play games too much on the job, but such is the addiction to daily play when virtual animals must be virtually fed and virtual crops wither without virtual water.

Audience Flow

When it comes to the notion of audience flow, most online sites follow the cable television model for specialized theme channels. As stressed in Chapters 1 and 2, *the main strategy is to invite audience flow in and discourage flow out*. On the other hand, much as multichannel programmers promote other channels, online programmers can *cross-promote content* by including new offerings (other programs) on the same screen page as those containing established programs (or other content). For such branded content providers as Cartoon Network and ESPN, cross-promoting among cable channels, online video games and pay-per-view videos is effective. The audience can be encouraged to watch the scheduled cable content as usual but is given the option to sample other forms of branded entertainment (or information) *without tuning away from the brand*. The internet and on-demand digital services strive to give loyal users alternate ways to remain with a program brand.

Because *surfing* (the online world's answer to *grazing*) is less common nowadays than in the beginning, new services need a developed programming strategy, beyond promotional support, to attract an audience. The *spinoff* approach and the *tie-in* approaches used by broadcasters can work well for online content providers. For example, *Angry Birds* was first developed as a game for mobile phones but later was spun off into television programs, both as an animated show and as a live-action version.

Conservation of Program Resources

Just as broadcast and cable programmers recycle material to optimize its value, online programmers put as much material onto their online menus as possible. *Unlike time-bound broadcast and cable programmers, the online content providers are not*

forced to rotate or rerun offerings because nearly everything is continuously available. (Some MMOGs are exceptions because they have exact start and stop times for all participants, but others go on and on until all players lose interest.)

One consideration influences some providers to limit the availability of their material: Many programmers believe that *perceived scarcity* makes content appear more valuable to the public. For example, Disney carefully limits accessibility to its old classic films on videocassette and DVD to make them seem more special when they briefly become available in stores. If online content becomes too common or too readily available, the perceived worth of the contents (as compared with premium materials) may be diminished. One reason why cable viewers spend so much of their time watching HBO is because they pay extra for it, and the extra use justifies the cost. The lessons for website program services seeking subscription fees are to keep content original and promote the content as "special."

Just as with a hit TV program, a winning video gaming franchise can be developed into new versions. *Call of Duty* was an original first-person shooter game set in WWII that recycled popular concepts into *Call of Duty 2*, *Call of Duty 3* and *Call of Duty: World at War*. The program's distributor Activision chose the Vietnam Conflict as the setting for *Call of Duty: Black Ops* (selling $650 million in the first five days on the market) and then the brought the game series into present-day battles with the *Modern Warfare Series: Call of Duty 4: Modern Warfare, Modern Warfare 2* and *Modern Warfare 3*. Game players can buy new games or add-ons to existing games (such as *Call of Duty: United Offensive*). Activision also created games for consoles and hand-held games under the *Call of Duty* brand: *Finest Hour, Big Red One, Roads to Victory, World at War: Final Fronts, Modern Warfare: Mobilized, World at War: Zombies 1 and 2* and *The War Collection.*

Breadth of Appeal

A game like *CityVille* has a very wide appeal (over 60 million active monthly players by 2011), attracting all age groups. Other games by Zynga target the young, such as *Mafia Wars* and *Warstorm,* but older audiences are typically sought for wide appeal games like *FishVille* and *Café World.*

Online content is not immune to being categorized as broadcasting or narrowcasting, even though the term *webcasting* encompasses both. Like cable programmers, most online programmers have a choice between two tactics: to narrowcast *unique content* (such as sports highlights or games) or to broadcast *mainstream content* (weather, news, commerce). Eventually, it is likely that subscriptions models will proliferate on the web, and evolve into some kind of "basic" and "premium" content. Those who toil in the programming business should take heart that, regardless of the technology and distribution, *content remains the most important factor in influencing users.* Whether broad or narrow, broadcast, cable or online, programs have to have distinctive appeal that meets some consumers' needs and wants.

Specific Approaches

Experts know little about what strategies work and do not work in this new medium, just as "experts" were ignorant during television's inception or radio's early days. Many honestly thought radio would be used for education! In the present day, *repurposing* television and radio content has become an automatic process for news directors and station managers. Many television stations now offer access to their recent news broadcasts via web page. It has become a competitive necessity. Oddly enough, the most-watched local news videos are produced by newspapers, not broadcast stations. Whether the strategy of repurposing applies equally well to all content and all situations is an open question, but we'll certainly find out as new television seasons emerge.

Selecting Content

Shelly Palmer has described a media world of *linear* (scheduling in real time) and *nonlinear* (on demand with viewer control) television, where the value of

content is best realized where that content is best viewed.[6] For linear viewing (plain old broadcast and cable television), he designates *emergent content*, meaning news, sports and live events. For nonlinear viewing (internet TV), he suggests *evergreen content*, meaning sitcoms, movies, dramatic hours and documentaries. The third type of content he calls *disposable content*, meaning talk shows, service shows (whose subjects have been rendered irrelevant because of technology) and infomercials. Disposable content is suited to either linear or nonlinear viewing.

Games have the best online growth potential. Games, contests, gambling and other kinds of online competition have become the "next big thing" in terms of interactive program content. Because they are free online and the brand names are known to parents, Disney and Toon games have gained enormous popularity with children as spinoffs, and many others are available for teens and adults. Some efforts have been made to distribute computer games for a fee over the internet, a successful strategy for capturing the person who has tried the free version and become hooked. *The most popular strategy to date, however, is selling virtual goods to game players, which has made Zynga a $10 billion company*. Can I sell you some virtual corn seed or a virtual parking place or maybe a virtual lottery ticket?

Running mini-lottery programs online has considerable (but unrealized) potential for the major media companies because the public is familiar with reports of lottery numbers and talk about winners as elements of television content, and the various kinds of media could be tied together. However, the FCC would almost certainly frown on close ties between any real gambling and media businesses. The commission has regulations in place that specify that any contesting that is lottery-like can only be incidental to the main programming service. Whether this subsidiary requirement applies to the internet is unknown. It is clear that the unregulated online world could run lotteries more readily than any other medium could. In the United States, online poker sites were shut down in early 2011, while the same poker sites operate freely in many other countries, making future uncertain.

Scheduling Content

So, how do the most popular online sites for TV shows list them so you can pick something to watch? What's interesting about the answer to this question is that the design, once created, is automatic. The programmer has to decide how to present the options, but no one has to manually update the suggestions. The computer is programmed to learn the subscriber's habits and make suggestions accordingly. Each content aggregator has a different set of strategies, so we will take a look at some examples:

Netflix: This service uses six highly-customized categories, different for each subscriber. Similar to the way Amazon makes book suggestions, Netflix offers its first category as "Top 10 [suggestions] for [name of specific user]." The text reads: "We create this *list based on your recent rental and watching history, ratings, queue adds, and taste preference settings*. We try to present a regularly updated selection of titles chosen specifically for you—older titles that you may have missed and new releases."

The second Netflix category is "TV Shows" and is *based on popular interest*. The third category is by genre, called "Custom category" [based on recent selections], then additional genres (e.g., "Children & Family Movies"). The fourth category is "New Movies to watch instantly" and followed by the fifth category, "Rate what you've seen to discover suggestions for you" (which is not really a category, but it appears as a fifth choice). The final category is "Local Favorites for [your city]" which targets subscribers by their location. Above these categories on the Netflix screen is a little menu bar with the following tabs: Genres (20 choices), New Arrivals, Starz Play, Instantly to your TV, and Suggestions For You.

Hulu: The free version of Hulu arranges its options in three categories—"Recent Episodes," "Popular Clips" and "Featured Content"—arranged in columns. Logging off or on does not affect the options displayed. Near the bottom of the screen, Hulu shows three additional categories—"Popular Shows," "Popular Movies" and "More to Explore." Hulu Plus

(the monthly subscription version of Hulu) uses a different layout of category options, but with the same absence of custom suggestions: "Browse TV," "Most Popular Alphabetical"—with numerous screens of choices, with check-box filters for "Currently on air," "Captions," "HD" and choice of TV only, Movies only or both—"Recently Added" and "Coming Soon." Does all this suggest to you that the assumption that people freely move around and choose whatever they like on the internet is kind of a fiction? There seems to be a lot of guidance here from the online services, just as there is in conventional broadcast and cable television.

Other Scheduling Strategies: *Cross-referencing* is the primary strategy for displaying content as a substitute for "scheduling" it. YouTube, for example, cross-references its clips so that the viewer sees suggestions related to the video just viewed. If the viewer watches a video featuring a particular politician, then all other videos featuring the same official will appear as choices. Sometimes general themes (humor or news) will trigger a menu of choices. Content providers have control over these suggestions and can choose to suggest videos for its paying video clients, which is somewhat akin to a *paid search placement*.

As discussed earlier, *dayparting i*s a minor consideration for online channels because the choices for users are so plentiful, more like cable and satellite services. Radio and television stations normally have *one* channel, so it makes sense to target the *one* demographic group most likely to be watching at a particular time of the day or day of the week—by age, gender or lifestyle. Online programs exist in nearly limitless cyberspace—where shelf space is endless and digital media can be ordered without regard to time or space. Similarly, *flow* is not very controllable for online programmers; users are as likely to travel horizontally as vertically, or even jump to distant sites, although sites try to keep themselves appealing and guide flow to other spots within the site.

At the same time, storytelling seems to be an inherently linear process, unfolding over time. Efforts to create innovative multiple paths for stories tend to evolve either into games or educational activities—both of which are effort-full, not effortless entertainment. As converged media have arrived, web programming must consider users' personal goals, and target those users who want either relatively passive or active content.

Tiering is one scheduling strategy that successfully made the transition from the analog to digital TV and then to the online world. It is likely that consumers will purchase more higher-tiered programming more often than not, just as cable and satellite subscribers purchase premium multichannel programming (see Chapter 9). Indeed, much of premium programming from HBO, Showtime and Encore has moved to random-access schedules in homes with digital set-top boxes and DVRs, and such program services will move smoothly online as new home technologies spread. HBO2Go is a web app that delivers HBO content directly to portable media.

Promoting Content

The practice of online program promotion is still very young, but it is already clear that content providers need to promote their products and services using a mix of mass marketing and an abundance of online spot messages (the equivalent of "on- air" in broadcasting and cable) and on-screen invitations (comparable to print ads). The traditional media's interest in all things internet also provides many opportunities for *publicity* (unpaid promotion).

One avenue for the promotion of videos is the viral nature of the internet. Most online video sites encourage viewers to "share this video with a friend" or to "leave a comment" (which creates more involvement and increases the chance that an ordinary video will rise to the status of viral video). Social media sites like Facebook and Twitter are good tools for the web programmer.

Wikis are sometimes associated with hit televisions shows (FOX's *American Idol*, CBS's *Survivor*). A *wiki* is a website that allows internet visitors themselves to easily add, remove or otherwise edit and change available content, typically without the need for registration. In the case of FOX's *Glee,*

fans can contribute their own explanations and interpretations of the storylines; meanwhile, the episode creators get feedback and generate excitement for future shows. Such collaborative processes allow mainstream content providers to be more closely connected to the eventual audience. A dedicated website further serves to promote the program, whether the show appears online or on the air.

Moreover, interactive media frequently generate email lists and sophisticated demographic databases of potential audiences for specific services. Nearly all websites that offer such content require the user to sign up for the service, even when it is free. That user's email address then becomes available (most sites ask permission) for updates. Instead of reaching merely *potential* users (as radio does with outdoor advertising), online services reach *actual* users, past and present, with their messages. Present users can also be encouraged to provide names of others who might be interested in the site, sometimes with a reward for the referral. In this way, online content providers can send messages directly to their subscriber base, without postage costs (although it may be *spam* to many people).

The standard online medium of *banner ads* reaches small targeted groups of online users, but getting promotional messages out to a wider audience will draw new users. After all, *many people can be persuaded to try out something new at least once, especially if it is free.* Such offers usually have a time limit, after which fees kick in. Because computers track when a given household has used up all free plays (of a program or a game), the service can flood the household with "time to subscribe" messages on multiple channels. In consequence, online promotion planners should budget money for paid advertising in other media. Although some adults still avoid online content, the traditional media of print, radio and television supply enormous potential audiences for online entertainment and information. *Despite the greater efficiency of online advertising, the reach of older media is important for building a base of users.* It needs to be combined with a targeted online approach.

Interactive media of several types can follow the promotional guidelines for the cable networks discussed in Chapter 9. For example, motion pictures will someday be released to video on demand immediately following their theatrical runs, assuming that video rentals become less effective in distributing movies and that studios are willing to take risks. Mass marketing ads that once said, "Now on VHS and DVD," now say, "Now available on demand." Other pay events carried online will require the same kind of promotion currently used by cable operators and DBS satellite companies. *Viewers won't care which way a movie comes to them.*

Online Measurement

As outlined in Chapter 5, Nielsen//NetRatings and Media Metrix measure the size of online audiences using two different methods: *online panels* and *server-side audits*. Both methods report mostly *cumes* (total unduplicated audience). Measuring total reach is a good tactic when a "channel" has not yet attracted a substantial audience. As convergence of the media takes place over the next dozen years, conventional percentages of the estimated total audience (ratings) and percentages of those actually using any service at a time (shares) will prove useful tools for measuring the kinds of online programming that garner a large core of regular users.

Like the national/local ratings for broadcast, cable and radio, internet audience measurement has proven to be dreadfully difficult and complex process. Companies constantly refine the process and constantly test to find new and more accurate ways to measure web audiences; the task is daunting. Nielsen's *Home Technology Report* describes some major complications that make accurate measurement annoyingly difficult. For example, because of the multiple interactions that can be happening on a single PC, information collected at the website level tells little about how content is actually being consumed. In some cases, PC users may access a website and then perform other totally unrelated operations while still keeping the original website online. Such uses may be widespread and varied but would be considerably different from the kind of use taking place when a visitor goes to a site,

looks at it and, then closes it. Thus, measurements of "time-spent-viewing" on many web pages may be misleading.

Who are the users of website content? There were more than 150 million unique video streamers in the United States in 2011. Moreover, viewing is quite splintered; only one service (*NBC.com*) had as many as 5 million unique visitors. Although less than 15 percent of adults in the United States watch video online at once a week, men aged 18 to 34—that elusive group that advertisers so desire—account for nearly half of daily viewers of online video.

According to The Media Audit, the percentage of adults who spend at least an hour a day on the internet is significantly greater than the percentage of adults who spend an hour a day with the print edition of a daily newspaper (perhaps because most newpapers have gotten shorter!). Research has shown that about a quarter of adults spend seven or more hours per week on the internet—as much as withTV—and heavy use (however defined) has been growing faster among internet users than among users of other media. The percentage of affluent users is also higher for the internet than for other media. For evidence of the arrival of online media, one need only look at the success of Netflix, which barely registered in people's minds in 2009 and was a dominant force just two years later.

What's Coming Fast

The most likely strategy for the major film studios, big broadcasters and the other impacted "old" media, is adaption to the new environment, probably by buying in. An *adaptive strategy* has to be viewed from the standpoint of the established media and their "old" business models. The old way of packaging shows in arranged schedules is most unlikely to vanish completely. Many businesses adapt by changing their business model or product, after spreading into related areas and testing the waters (or in this case, testing the revenues). When the telephone industry saturated its growth potential by the 1980s, it looked to other information entities, like cell and cable. In contrast, when Kodak saw the impending doom of its film business in the 1990s, it dumped film rolls and got into the digital photography business.

In response to the question—Can streaming video sites with entertainment actually make money?—the answer is *yes*. Revenue is beginning to flow in many streams: advertising, sponsorships, transactions and commerce. The pay-per-view model works well, as long as others are no longer giving away content. As for advertising, it may work best when it is personalized—something called *one-to-one* marketing, where share of customer is more important than share of market. Privacy is also an issue, and the number of potential consumers for any given distribution platform must be large enough to justify the extra marketing effort beyond the usual mass media networks. Bandwidth limitations of the past are being eliminated. Faster connections and better video compression have made the online platform a practical way to distribute video content. The Blu-Ray DVD standard delivers HDTV movies on a single disc, but high-definition images are finding their way to the internet at a slower rate. On the other hand, a handheld tablet needs less resolution than a giant screen several feet away.

Faced with the announcement of big changes in store for old media in a new media world, some people wonder aloud whether people really want to interact with their TV sets. One should consider that the same question was asked about the personal computer, which was originally designed for doing such office work as spreadsheets, word processing and databases. The answer proved to be *yes*. Will people be just as enamored with interactivity from their TV as from their computer? The answer, again, seems to be *yes*.

Do people want to watch video over the web on their computers? *Yes,* if the added control and convenience are there. People want conveniences that make their lives easier. Way back in 2000, Gary Lieberman, analyst for Morgan Stanley Dean Witter, made the following pithy predictions about the future of online that have proven accurate.[7]

1. Once the tools and applications are in place, the revenue potential is huge.

2. Watching [home shopping channel] QVC, if you have a "buy" button on your remote, will be hard to resist.
3. Set-top boxes will not succeed unless they cost $300 or less.
4. Obsolescence will become the same problem for set-top boxes that it is now for computers.
5. Thin applications will be more successful than fat ones.
6. DVRs are like power windows on your car: Once you have them, you can never go back.
7. The first step will be video-on-demand.
8. The "killer application" will be a surprise, likely dreamed up in a dorm room.
9. Interactive TV will land in the middle of the PC and TV experience: You won't lean back as much as you once did, but you won't lean forward as much as you do with your computer.
10. Brand names will continue to be important.
11. Compatibility is a must.

When nearly all of America is finally online, and most have high-speed service, then the ubiquity of the broadcast world will no longer be so wonderful. TV Everywhere will have arrived, if you pay to get it. Unless you watch or read a lot of science fiction, it might be hard to imagine that consumers might download their favorite shows while channel-surfing through thousands of channels or letting a DVR robot download programs for them while they are away, but such changes seem likely in the coming years. Whoever designs the kind of remote control Americans will use will have a tough job. Will a trackball replace the mouse? Will voice-recognition do away with the lap keyboard? Will my iPhone or iPad replace the remote entirely? Can the public afford to pay individually for each show? Will product placement within sitcoms and dramas be enough to pay the stars' salaries? If the economics are wrong, the old mass audience ways will last much longer. If the new media demassify the audience, however, there will be no turning back. You will live in interesting times.

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PART
3

Understanding Key Processes

Part Three Outline

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CHAPTER

5

Program and Audience Research and Ratings

Douglas A. Ferguson, Timothy P. Meyer, and Susan Tyler Eastman

Chapter Outline

"How could those idiots cancel that show? It was my favorite. Why do they always get rid of the good stuff and keep all the junk?" Sound familiar? It should. Most people have, at one time or another, heard the news that a favorite television show has been canceled. The reason? Usually the one given is "low ratings," a way of saying that not enough people watched the program. Why are the ratings so important? Why do so many shows fail? Can't a network executive tell whether a show will succeed in the ratings? In this chapter we look at ratings and other forms of audience research and explain what they are, how they are used and misused, and why.[1] We will examine the industry's current program research practices and qualitative audience measurement techniques and then, because of their special position in industry economics, explain and interpret audience ratings.

Decision-Making for Programmers

Media programmers (and all others in the advertising-supported media) are interested in one goal: *reaching the largest possible salable audience.* Programmers define audiences differently depending on particular circumstances, but regardless of definition, determining audience *size* is paramount. The separations between program creation and presentation and reception by the audience mean that programmers must always guess who will be there and how many there will be; then estimate how predictable and accurate those guesses are.

Because networks, stations and other content providers sell commercial time at dollar rates based on *predicted* audiences, it is no surprise that program and audience research is critical for the financial health of the broadcast television, radio, cable, mobile and online industries. Program and audience research, usually involving ratings, guides the process of selecting and scheduling programs to attract the desired audience and provide feedback on programming decisions.

The broadcast and cable industries use many research approaches to evaluate programs and audiences, most of which fall into one of three groupings (to date, internet companies have used only the third type):

1. Qualitative and quantitative measures of the programs themselves
2. Qualitative and quantitative measures of audience preferences and reactions
3. Quantitative measures of audience size

Qualitative research tries to explain why people make specific program choices and what they think about those programs. **Quantitative** research, in the form of ratings and surveys, reports what programs (and commercials, presumably) people are listening to or watching.[2]

Programmers use qualitative information on programs to select and improve programs and to understand audiences' reactions to program content; qualitative audience data help explain people's reactions to programs. Quantitative audience data generally provide measures of the size and demographic composition of sets of viewers, listeners or subscribers. Of all findings, however, *ratings are the major form of program evaluation, and they have the most influence on the other concerns of this book—program selection and scheduling—in the United States and, indeed, on the television industry worldwide* (see 5.1).

Newer on-demand delivery systems have taken most of the guesswork out of estimating audience size, although viewer reactions still require measurement. Cable systems can collect viewer information using the converter boxes that deliver the channels. Mobile devices can track what and how much is viewed by whom, assuming you are not watching a program on a borrowed iPad. Broadcasters are largely in need of audience estimates based on survey research with the aid of metered devices.

The Advent of People Meters

In the late 1980s, a sweeping change occurred in the national television ratings—the shift by ratings companies from measuring people's viewing using diaries and simple passive meters to measuring viewing using people meters, a much more elaborate, interactive measurement process. *People meters*

5.1 Ratings Research Is Everywhere

Dr. Wally Langschmidt was the founder of ratings research in South Africa. He was the colleague of such American and European luminaries of early media research as Arthur C. Nielsen, Alfred Politz and George Gallop. Dr. Langschmidt helped create the South African Advertising Research Foundation (SAARF). It promotes and monitors the use in South Africa of up-to-date standards in such audience measurement tools as people meters, diaries, and personal interviews. Dr. Langschmidt's most outstanding contribution, however, was to pioneer the concept of a single data source for all media—called the All Media and Products Survey (AMPS)—used today by both media and advertisers in South Africa. The AMPS survey gives the whole country a common trading currency that is used by both advertisers and broadcast program planners to evaluate the use of all media.

One big difference from the American system is that funding of market research in South Africa comes from a 1 percent levy on each advertisement carried on radio, TV, print, outdoor advertising, and cinema that is paid by the marketers. SAARF is run by a series of industry committees, and although the actual research is presently commissioned to Nielsen Media Research, SAARF's importance to the reliability of South Africa's media research is widely recognized, and its contract has been renewed every five years.

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consist of a computer and a handheld electronic device with which individuals signal when they are viewing. The "black box" computer is located near the television set, registering (from the handheld device) each viewer's presence and all channel selections. When first installed, background demographic information (age and sex) on every viewer in the household gets stored in the device's memory to be matched with the viewing information. As audiences develop more mobile habits, viewer information will be more user-specific with data stored such portable viewing devices as iPhones and iPads.

A/P Meters

In 2005 Nielsen introduced further refinements to its measurement devices, counting program viewing up to seven days after the original time of showing, to accommodate time-shifting with video recorders. These *active/passive (A/P) people meters* measure audiences with greater accuracy and less reliance on viewer participation by reading codes embedded into the programming—rather than by simply detecting the channel to which a set is tuned, as is done by the old metering system. At first, these meters measured only national audiences (a particular sample), but they soon moved into the larger markets for local measurement. In 2011 Nielsen began measuring viewing on web-enabled television receivers.

Set-Top Box Measurement

A *set-top box* (*STB*) measures television viewing by connecting a counter to the (hated) digital cable box already installed in most homes. This method is expected to become more popular, if not liked, especially with small markets where diary-based ratings from Nielsen show wide differences from Rentrak's STB ratings. Even local people meters and passive meters have been shown to produce measurements that diverge from STB ratings, thus supporting a future shift to STB (but the good news for consumers is that set-top boxes will soon be buried in TV sets as they are in DVRs).

TiVo uses its own DVR box to offer STB measurement and sells the information on replaying commercials to advertisers. Programmers can glean useful information about how people pause and rewatch television shows and advertisers can assess the popularity of commercial messages by how often they are skipped (or played a second or third time). TiVo users probably don't, however, constitute a representative sample, but the service measures amount of time watching broadcast, watching cable, either in recorded mode or live and then on

broadband, streaming versus downloads, podcasts and user generated content, so the service generates some useful data for the industry (even if it makes consumers wary).

Actually the term *set-top box* is becoming a misnomer, as fewer people have television receivers that even resemble a box. Such a device connected to flat-screen receiver is sometimes called a *digital converter box*, although the terms set-top box and STB are still widely used.

The Threat from DVRs

An ongoing consideration in the television and advertising industries centers on the adoption of DVRs, such as TiVo and various digital converters provided by cable and satellite operators. The DVR is a device that functions like a personal computer in that programs are digitally stored on the machine's hard drive. Like computer files, programs can be kept in storage or deleted once storage capacity is reached, and on some DVRs, programs can be burned to disks and saved as DVDs. Although home video recording of various kinds has been available for many decades, *widespread use of DVRs affects two relationships: that between producers and program distributors and that between advertisers and program distributors*. Over 40 percent of homes had DVRs in 2012, but penetration was expected to increase to nearly all digital households by 2015. All satellite service subscribers get a DVR, and cable subscribers have the option of having either simple or high-end DVRs with high-definition service, and all of their benefits.

Traditionally, the A/P meters counted only the number of minutes spent viewing a program within a few seconds of transmission (now eight seconds to allow for DVR lag), the definition of "live" viewing. The valuable *overnight ratings*, for example, include only "live" viewing. But Nielsen produces other important data sets, such as "live plus same day," which measures viewing within 24 hours (to include DVR recording and playback), and "live plus seven," which measures programs recorded and watched within a week. In 2007 Nielsen introduced *C3 ratings* which measures average commercial minute ratings with three days of DVR playback. The system is a compromise between networks (who want credit for DVR playback) and advertisers (who only want to pay for viewers who are watching their commercials). Thus, producers, syndicators and advertisers negotiate with broadcast and cable networks about which set of numbers to accept as the standard.

5.2 Tracking Bloggers

Not all ratings services track television or radio and not all come from Nielsen or Arbitron. Technorati, a blog tracking service, tracks about 55 million blogs worldwide, in several languages (English, Korean, French, German, Italian, Chinese and others), to measure who is talking about which companies and what they are saying. Unlike ratings, this kind of surveying tracks both the buzz that aids new products and the negative write-ups that often doom new products. Such a service benefits marketers of products by monitoring online chatter that can supplement or contradict traditional advertising. In the same way, American media marketers play close attention to bloggers who discuss television programs, and many large companies have their own specialists (like commentators) who create daily blogs on a variety of topics, some of which are their own products and services. Brandimetrics and Nielsen BuzzMetrics track blogs about specific client products and services in the U.S. NM Incite (a Nielsen McKinsey company) collects social media information that builds on BuzzMetrics. NM Incite helps clients take advantage of the power of social media.

Nowadays anyone can track topics because the Twitter stream of microblog messages (*tweets*) is indexed "live" by search engines like Google. A programmer can follow comments made during or after a program by searching the show title or a *hashtag* (e.g., #dwts for *Dancing with the Stars*). In addition, Twitter publishes the most-recent "top trending" topics on its home page. Even the walls of Facebook are revealed through the *youropenbook.org* website. Some observers believe the program ratings for a primetime show can be estimated by the amount of background chatter generated on social media sites (see also Chapter 4).

Another concern is that DVRs may upset the delicate balance that permits the television industry to pay for producing and distributing programs. All DVRs have the ability to skip over commercials while playing back a recording. If more and more viewers watch more and more television but skip the commercials, the financial infrastructure of the television industry becomes seriously threatened. Advertisers rely on television networks and stations to deliver audiences for the programs in which their commercials appear, and advertising revenue pays most of the bill. *If the viewing audience for commercials shrinks because of DVR use, then ad revenues will shrink correspondingly*. At some point, revenues might be insufficient to pay for program production and delivery. This would require a shift to an alternative way to pay for television programs—perhaps a pay-per-program system—that would make television a much less affordable commodity.

Even if DVRs eventually change the economics of television, audience measurement will still be needed. Recent research from Nielsen on TV commercial viewing by DVR users has softened many advertisers' concerns about skipping commercials, at least as long as fewer than half of all homes have DVRs.

One response to the threat of DVRs has been to expand *product placement* in programs. Now research firms measure the value of product placements (in daytime and reality shows) and sponsorships and look at the opinions of bloggers as a way to gauge improvements in products and marketing (see 5.2). As product placement invades television programming, a trend that began many years ago in motion pictures, the line between program measurement and advertising measurement begins to blur. This chapter, however, focuses on program and audience measurement because they are crucial to current programming processes and strategies.

Program Testing

The enormous expense of producing television programs necessitates testing them before and during the actual production of a show. In addition, promotional announcements that advertise programs are usually tested to gauge their effectiveness and ability to communicate a program's most attractive features.

Concept, Pilot, and Episode Testing

Concept testing involves asking audiences whether they like the *ideas* for proposed programs. Producers generally conduct this type of test before a program has been offered to a broadcast or cable network. *Pilot testing* occurs when a network is considering the purchase of a new series, and audiences are asked to react to the *pilot* episode. This process is described in detail in Chapter 4 (network prime-time programming). *Episode testing* occurs when a series is under way. Plot lines, the relative visibility of minor and major characters, the appeal of the settings and so on can be tested to gauge audience preferences.

ASI Entertainment, based in Los Angeles, is one of the best-known companies conducting program tests (and tests of commercials). Traditionally, ASI researchers invite people into a testing theater to watch a television program, a film or a commercial, asking them to rate it by pushing "positive" and "negative" buttons that are attached to their seats. Generally the participants are paid, often in products rather than cash, for taking part in the test. Computers monitor individual responses, producing a graph of the viewer's "votes" over time. These data are correlated with demographic and other information (*psychographics*) obtained via questionnaires from each participant (see 5.3).

Theater-style testing also takes place at the Television City research center at the MGM Grand in Las Vegas, an ideal location for assuming a nationally-diverse group of vacationers. Visitors are recruited to watch pilots and participate in surveys and focus groups. Five minutes before the screening begins, viewers are led into one of four studios to watch the most recent programs from CBS, MTV, Nickelodeon and other Viacom networks (this television-holdings giant manages the research center). A survey following the program lasts about 15 minutes; such incentives as T-shirts, caps, pins, key chains and computer software are used to get participants to fill it out.